The data employed by Mr. Boreham are:—

Greenwich M.T.	Comet's Longitude.	Comet's Latitude.	Sun's Longitude.	Sun's Log. Rad. Vector.
1846.	° ′ ″	° ′ ″	° ′ ″	
May 1·49290	354 55 3·0	+39 16 48	41 11 1·0	0·0036208
10·55993	67 31 41·3	48 46 5·25	49 57 2·6	0·0045194
15·51287	89 4 48·2	+35 39 54·3	54 43 27·6	0·0049834

reckoned from mean equinox of May 1.

By J. R. Hind, Esq.:—

Perihelion Passage, 1846, June 5·24701, Greenwich Mean Time.

Perihelion	162° 33′ 51″·1	Mean Equinox,
Node	261 57 45·5	May 0, 1846.
Inclination	29 19 48	
Log. q	9·8031613	

Motion retrograde.

These elements are computed by Olbers' method, taking into account the complete expression for the ratio of the curtate distances, on the Königsberg observation of May 1, and the Berlin observations of May 7 and 13.

The data for the calculation, referred to the mean equinox of May 0, 1846, are:—

Greenwich M. T.	Comet's Longitude.	Comet's Latitude.	Sun's Longitude.	Sun's Log. Rad. Vector.
1846.	° ′ ″	° ′ ″	° ′ ″	
May 1·49290	334 54 52	+39 16 46	41 10 52	0·0036208
7·36959	34 26 33	55 14 53	46 52 5	0·0042120
13·46921	82 55 25	+40 32 31	52 45 11	0·0047950

The error of the middle observation is −0″·2 in longitude, −4″·6 in latitude.

Elliptic *Elements of Brorsen's Second Comet.*

By M. Wichmann of Königsberg from the measurements with the heliometer, reckoned from the mean equinox 1846·0.

Time of Perihelion Passage, 1846, June 5·55530, Berlin M.T.

Log. a	1·7357679	
Log. e	9·9949154	(ϕ = 81° 14′ 58″·8
Log. q	9·8017037	
Ω		261° 51′ 14″·1
Perih. − Ω		99 50 19·6
i		150 41 13·0

Which represent the observations as follows:—

		Calcul. $\Delta\alpha \cos\delta$	—	Observ. $\Delta\delta$
1846.	May 1	− 1″·4		+ 1″·9
	4	− 0·8		+25·1
	5	+ 0·0		+30·7
	10	+ 8·8		+ 9·5
	13	+ 9·0		− 2·3
	14	− 0·4		+10·7
	17	+ 6·5		+ 6·2
	18	+ 1·6		+ 1·5
	21	+ 3·5		+ 1·5
	22	+11·5		+ 0·5
	29	+ 7·6		+ 9·2
	June 4	+ 3·2		− 0·2
	5	+ 3·2		+ 1·6

M. Wichmann believes that the great errors, May 4, 5, are caused by the proximity of the comet.

It appears that a closer approximation might have been obtained, which, however, at this time does not appear necessary.

As the comet will probably soon be again visible and continue to be so for some time (the distance from the earth decreases during some months), M. Wichmann has calculated this ephemeris for 12^h Berlin mean time, corrected from mean equinox 1846·0.

		R.A. Comet.	Decl. Comet.	Log. Dist. from Earth.
1846.	July 15	99° 30′ 57″·3	+23° 58′ 15″·8	0·29762
	19	99 3 23·8	22 59 8·0	0·30217
	23	98 36 11·8	22 0 57·0	0·30507
	27	98 8 36·2	21 3 16·2	0·30647
	31	97 39 52·0	20 5 40·3	0·30649
	Aug. 4	97 9 15·8	19 7 45·1	0·30525
	8	96 36 4·7	18 9 7·1	0·30284
	12	95 59 34·6	17 9 22·8	0·29935
	16	95 18 58·6	16 8 9·0	0·29486
	20	94 33 26·3	+15 5 2·6	0·28945

Occultation of *Mars* by the Moon on Feb. 1, 1846. By W. Luff, Esq.

The observation was made at Oxford, in latitude 51° 45′ 10″ N., and longitude $5^m\ 1^s·2$ West. The evening was generally unfavourable; but just before the immersion the sky became much clearer, and Mr. Luff thinks the error of the observation cannot exceed half the beat of a chronometer, or $0^s·2$. The emersion was not so well observed, as the moon was obscured by clouds, which only cleared away just as the limb of *Mars* appeared to touch the bright limb of the moon.

	h	m	s	
Total immersion	9	57	37·6	Oxford M.T.
— emersion	10	17	38	